WHIRRAKEE

October 2015

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MONTHLY NEWSLETTER OF THE BENDIGO FIELD NATURALISTS CLUB

Bendigo Field Naturalists Club Inc.
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Office Bearers for 2015 - 2016

President	*vacant*	
Vice President	Alistair White	
Secretary/Public Officer	Matt Comer	0409 162 627
Treasurer	Ben Goonan	

Positions delegated by the Committee

Minute Secretary	Anne Bridley (for general meetings)	
Excursion sub-committee	**John Lindner**, Simon Hay, Richard Goonan	**5448 3406**
Syllabus sub-committee	Ben Goonan, Simon Hay	
Librarian	**Diana Collier**, Jess Milroy	**5443 0137**
Garden sub-committee	Kerrie Norris, Jess Milroy	
Observations coordinator	Jenny Shield	
Supper coordinators	Alistair White, Jess Milroy	
Hall management sub-committee	**Maurie Lewis**, Rob & Glenise Moors, Ben Goonan	**0407427179**
Whirrakee contact/editor	Sabine Wilkens e-mail: s.wilkens@latrobe.edu.au	5443 2797
Whirrakee mailing coordinator	Jenny Shield	
Website sub-committee	Ben Goonan, John McCallum	

Membership of the Bendigo Field Naturalists Club is open to all those interested in Natural History. The subscription rates are: Single $40; Family $50; Concession: Single $35; Family $40. *Whirrakee* subscription only is $40.

General meetings are held on the second Wednesday of each month. The venue for General meetings is the Golden Square Senior Citizens Building, Old High Street, Golden Square. The meeting starts with members sharing their recent natural history observations. The invited speaker starts at 8:00pm and meetings conclude with supper. The Annual Meeting is held in September.

Committee meetings are held on the third Wednesday of each month at 5:30pm. Members of the Committee are the Office Bearer listed above and the following members: Diana Collier, Devi Shanty, Simon Hay, John McCallum, Richard Goonan, Karen Thomas, Jess Milroy

Excursions are conducted regularly and are advertised on the diary page of the *Whirrakee*. The assembly point for excursions is the Golden Square Senior Citizens Building, unless otherwise specified. Several interclub field naturalist campouts are held every year.

The Bendigo Field Naturalists Club is actively involved in local conservation issues. An **indigenous garden** has been established around the Golden Square Senior Citizens Building. Working bees are advertised on the *Whirrakee* diary page.

Bird Observing: Club members conduct regular bird surveys. Please contact Anne Bridley 5442 6188 or Glenise Moors 5439 6254 for details. Special bird observations should be reported to Anne Bridley 5442 6188. To propose bird observing excursions please contact Kerrie Norris 5447 8017.

WHIRRAKEE

Monthly Newsletter of the Bendigo Field Naturalist Club
Vol. 36, No. 9, October 2015
Whirrakee takes its name from the Whirrakee Wattle (*Acacia williamsonii*), which is virtually endemic to the Bendigo region

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Authors are responsible for the accuracy of the information they use and also for any opinions expressed in their articles. Contributions should be posted or e-mailed to the editor at least two days prior to the last Wednesday of the month. They will be included as soon as possible after they are received, although space restrictions occasionally require shortening of articles or holding them over till the following edition of *Whirrakee*.
Articles in *Whirrakee* may be reproduced, but permission should be obtained from the Bendigo Field Naturalists Club, and acknowledgment should be given to the author and the Club. Some back issues are still available on request.

Editor's Note
The new club year (after September Annual General Meeting) has started in an unusual manner, with no new president emerging on the night. Please see the article on page 3 about this situation. On the same night, I hugely enjoyed the Leadbeater's Possum talk and have included a very brief summary on page 3. I was unaware that Eric Wilkinson, besides being a geologist of note, was also the re-discoverer of this species in 1961. We are immensely proud to have Eric in our midst and this adds extra interest and hope for a good recovery of this critically endangered animal.
The third point in this space is a plea for people to share the clean up and supper duties on the nights of the general meetings. Alistair is making up a roster for these duties so please be prepared to help. Having a (hot) drink and a biscuit after a meeting gives people a chance to exchange field natty information, hatch excursion plans, show photos of recent trips and generally enjoy each others' friendship, all things that contributes to the warmth and welcoming of our club.

Front page photographer: Kerrie Norris

Family Nature Club activity on August 16 (planting for frog habitat at Kangaroo Flat Botanic Gardens). See text on page 3. Other photos of this event appeared in the September *Whirrakee*.

Short Notices

Register of First Aiders

Thanks to the work of Devi Shanti, the committee is in an advanced stage of preparing a Risk Management Plan. The draft plan requires a first aider for each outdoor activity. Please see page 3 in the September *Whirrakee*, if you think you can help.

New committee positions 2015/2016

by Matt Comer

At the recent Annual General meeting, no nomination has been received for the role of club president. The committee has decided the task of chairing the meetings will be rotated amongst committee members. The committee is comfortable with this arrangement and the feeling is that it will give different committee members a good opportunity to have a go, share the load, and possibly add interest to the meetings. *Of course the committee would still welcome any nominations for president.*

The other office bearers, committee members and delegated positions (incl. some new ones) have been updated on page 1 (inside front cover). Alistair is working on a roster for meeting nights (set up/clean up/supper duties) *The committee invites any other members who would like to get involved in any of the sub-committees/roles to contact us.*

September Speaker Steve Meacher and Eric Wilkinson

by Sabine Wilkens

I had no idea that Eric Wilkinson was the re-discoverer of the Leadbeater's Possum in 1961, when the species had been thought extinct. The talk covered the possum's history of re-discovery (it's is amazing how different it would be today with our strict animal ethics guidelines), the current status and on-going threats of this interesting, beautiful animal. Thanks also to Steve for his enthusiasm! In July this year, the Leadbeater's Possum Action Plan was released:
http://www.environment.gov.au/biodiversity/threatened/publications/leadbeaters-possum-action-plan
Possum experts (and Steve told us why) agree that more concrete action needs to be taken and following through with the idea of a Great National Park that covers all of its known territories seems a must as a first step.

Phil Dyson – Preview of October talk

Phil's presentation will explore the genesis of the Bendigo Goldfield including deep ocean marine sedimentation followed by structural deformation. It will describe the evolution of the groundwater system and how the dynamics of the aquifer have been influenced by European development including both, agriculture and mining. All are warmly welcome

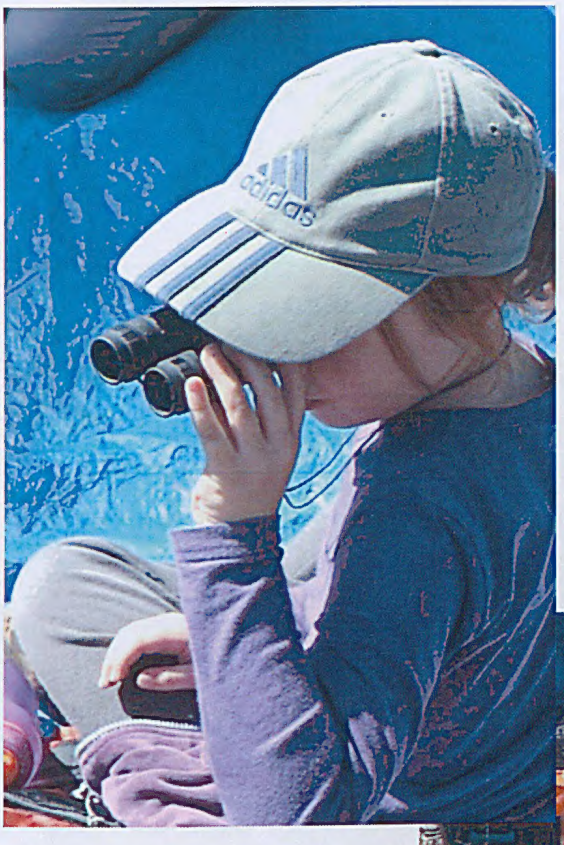
City of Greater Bendigo (CoGB) Environmental Grant Scheme: Kangaroo Flat Botanical Gardens Frog Pond Habitat Restoration Project 16th August 2015

by Kerrie Norris

"What a scene to behold... frogs calling on this side (of the pond) and so many little people busy tilling the soil on the other..." This enthused statement from a gentleman, who arrived later during the morning, summed up the success of the Family Nature Club's assistance to our Club in completing the project. More than 60 people, ranging in age from 2 – 86 years visited to give their support. A special thank you must go to the CoGB Natural Reserves staff, who ensured that the heavy duty work required was done well in advance and the children and their adult supervisors where able to contain their excitement to each make a positive contribution (no matter how small or mucky) to the task at hand. The value of adding more detritus to the pond and the planting of more than a thousand native grasses to create a, 'frog friendly lawn' was not lost as a significant improvement to the habitat for future utilisation by native fauna (see picture on front cover and pgs4/5 of Sept. *Whirrakee*)

Species Planted

Poa labillardierei	Common Tussock-grass
Poa sieberi	Grey Tussock-grass
Dianella longifolia	Long-leaf Dianella
Carex appressa	Common sedge
Lomandra longifolia	Spiny-headed Mat-rush



September Family Nature Club activity:

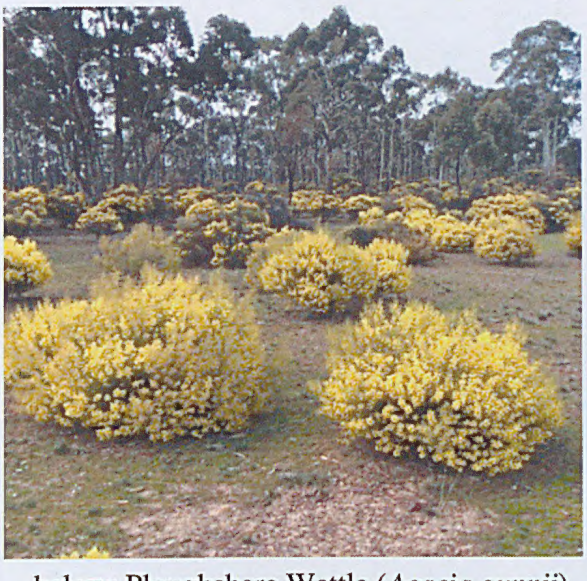
'Birds and nest building' with Nicole Howie

It was a beautiful spring day with plenty of birds out and about…

Photos by Joy Clusker

Club Wattle Excursion, 23rd August (see also report by John Lindner on page 8)
Photos by Joy Clusker

Whirrakee Wattle (*Acacia williamsonii*) has given its name to our club newsletter



below: Ploughshare Wattle (*Acacia gunnii*)

We finished the day with a walk to Black Rock

Wattle season 2015 by Sabine Wilkens

The wattle season has seemingly stretched out longer than normal, or is that just my imagination? (Once again, I wish I had kept flowering diaries of a particular spot). Salmon Gully was one of the stops of the wattle excursion in August. I went two weeks later and it was still very good with five native wattles plus some Cootamundra wattle hanging in there (I could not find the Woolly Wattle, see pg 8). Ausfeld's wattle was better than I can remember!
Top left: *Acacia genistifolia*
Top right: *Acacia paradoxa*
Left: *Acacia pycnantha*

Below: *Acacia acinacea*

Below: *Acacia ausfeldii*

Life membership of the Bendigo Field Naturalists Club was presented to Rob and Cynthia Watkins by Bill Holsworth at the club's September annual general meeting. (photo by Matt Comer)
Rob and Cynthia have freely given untold services for a very long time to the club, (one of their latest achievements was transferring material of the club's first 40 years to digital format). This presentation was a highlight on the night.

Below: on that same evening, these sawfly larvae (*Perga* sp.) were photographed on a eucalypt outside the clubroom by Maurie Lewis.

These larvae rest during the day and defend themselves by raising their heads and spitting eucalyptus oil at any potential attacker (thus the common name 'spitfires'). At night, they feed on leaves, but always stay in close contact to one another. The adult sawflies look like fat, ancient flies; Our local duck orchids are an example of plants pollinated by sawflies.

Below are just two examples of colours in the bush, other than yellow...Bendigo wax and some very young eucalypt leaves, both photographed at Salomon's Gully. Besides the wattles, Bendigo Wax there is also having a good season.

Acacia Excursion report, 23 August 2015

by John Lindner

Location Salomon Gully Flora Reserve, Quarry Hill and The Whipstick

Participants

Members: Joy Clusker, Matthew Comer, Bill Holsworth, Carol Holsworth, John Lindner, Kate Lindner, Rob Watkins, Cynthia Watkins, Devi Shanty, Colin. Thomas, Amber Johnson

Visitors: Lorraine Leversha and Pat Friswell

Total = 13

Weather Fine and sunny overall. Pretty chilly at first, but quite warm later on.

Program We spent the morning at Salomon Gully, walking around part of the old nature trail route which the club was instrumental in developing in the early 1980s.

There were six species of acacia to identify and examine, as well as a good selection of other flowering plants.

Having a bit of extra time up our sleeve, we did a small detour up the drainage line at the southern end of the reserve to locate a large Aboriginal rock-well at the side of the creek. We then headed up the rocky ridge towards the very corner of the Quarry Hill Golf Course, to find the circular and quite deep (about 40 cm) rock-well right in the corner of the second tee – this is the one that is well known and obvious. On the same outcrop of rock, just inside the reserve, are two shallower wells. All of these wells are found in Ordovician sandstone, apparently in the same broad surface outcrop.

The afternoon was spent in the southern part of the Whipstick, where we made five stops. The first of these was in Willman Road, about a kilometre east of the junction with the Tennyson Road, where there is a large area of Whirrakee Wattle on the property of Ian Willman, whose permission for access had been obtained.

We then stopped westwards along Howes Rd, in Millwood Road, along Melotte Road and at Black Rock. The last necessitated a walk of about 0.5 k in from Black Rock Road. There were different acacias at each of these locations.

Examining the acacias

Besides just locating and identifying the acacia species, another purpose was to examine each one to understand some of their important evolutionary adaptations. The more closely you examine each part of an acacia (growth habit, branches, phyllodes, flowers), the more interesting it becomes.

While some acacias do bear true leaves (those with pinnate or bipinnate foliage), most bear phyllodes. But what makes a phyllode different from a leaf? Here are some of the factors:

- It is actually an enlarged and flattened leaf stem (petiole).
- It nevertheless carries out the functions of a leaf (photosynthesis).
- At the base, joining it to the branchlet, there may be a pulvinus, a swollen part of the stem which may also be yellowish.
- The pattern of veins or nerves is distinctive, and there are many variations.
- It may bear one or more glands (extra-floral nectaries) on the edge.
- Juvenile or seedling leaves are nevertheless usually pinnate or bipinnate.
- There are many features which have evolved to conserve moisture: they may be particularly thick, tough and fibrous; they are often very small in size; the stomata may be sunken with cells especially thick-walled; surface ornamentation may be distinctive (eg. bristles, wax, resin, ridges).

Apart from these features, which are discernible by eye or with a magnifying glass, it would be very interesting to compare images of thin sections of leaves and phyllodes taken through a powerful microscope. I'm sure there would be differences at the cellular level too.

We also looked at acacia flowers in some detail: the types of inflorescences (flower clusters), whether in multiple-headed racemes or individually on stalks; the number of flowers in each head (all the species here have spherical heads); the minute individual flowers with their own petals and stamens.

Acacias at each location with a few notes on interesting features. (I have decided to omit the lists of other plants, flowering and non-flowering, that we also noted).

Salomon Gully Flora Reserve
Golden Wattle (*Acacia pycnantha*)
•Typical, large, flat, leathery phyllodes.
•Large racemes of flower heads.
•Flower heads have up to 80 separate flowers.
Ausfeld's Wattle (*A. ausfeldii*)
•Phyllodes have numerous, pale gland-dots.
•Branchlets are minutely ridged.
Spreading Wattle (*A. genistifolia*)
•Phyllodes are extremely sharp-pointed.
•Flowers are very pale, almost white.
Gold-dust Wattle (*A. acinacea*)
•Small, oval-shaped phyllodes, with a point.
Hedge Wattle (*A. paradoxa*)
•The fine thorns are enlarged stipules.
• Wavy-edged phyllodes are aligned with the stem.
Woolly Wattle (*A. lanigera*)
•This was a very unusual find. There was only one plant, and it was in the more degraded area up the hill, not in the bush section.
•Phyllodes are very stiff and multi-veined.

Willman Road
Whirrakee Wattle (*A. williamsonii*)
•The timing of the excursion coincided with the Whirrakee Wattle being fully in bloom.
•Many of the shrubs here are old enough to have developed the characteristic dome shape.
•The mass of flowers fills the air with a sweet scent.

Howes Road
Bent-leaf Wattle (*A. flexifolia*)
•Flower heads have mostly only 4 separate flowers.
•Each phyllode has a very prominent raised vein and a distinctive bend at the base.
•Branchlets are streaked with aromatic resin.
Other wattles: Golden Wattle, Ausfeld's Wattle, Whirrakee Wattle

Millwood Road
Mallee Wattle (*A. montana*)
•Dark green phyllodes with many fine veins.
•Flower buds are stalkless and bear what look like small brown scales (but the open flowers do have stalks).

Melotte Road
Round-leaf Wattle (*A. rotundifolia*)
•Phyllodes are thick, dished and bear a point.
Others: Bent-leaf Wattle, Whirrakee Wattle

Black Rock
Ploughshare Wattle (*A. gunnii*)
•Habit is a rambling, sparse shrub, which would be hardly visible without flowers.
•Phyllodes are shaped (rather fancifully) to an old-type mouldboard plough, with a long handle and furrowing piece. They are extremely sharp-pointed.
•Flowers are very pale.

Some interesting terms
'Acacia' From the Greek "akakia", referring to a thorny plant. Many acacias are tough, rigid, spiny or thorny.
'Phyllode' Generally means "like a leaf". From Latin "phyllodium" and/or Greek "phullon" = leaf, "phullodes" = leaflike.
'Wattle' A material for making fences or walls by using rods or stakes interlaced with twigs or branches. It may be in-filled with mud or clay, hence "wattle and daub".

President's report for 2014-2015
by Jenny Shield, September 9, 2015
The task of preparing the President's Report has fallen to me as Club Vice-President and Acting President. Rod Orr, the elected President resigned last March. This report covers the whole of the 2014-2015 year.

As you all know, 2015 is the 70th Anniversary of the Founding of the Club. Rod suggested that we mark this anniversary by celebrating who we are, and doing what we always do, focusing on the Club's contribution to natural history knowledge in the Bendigo area and the contribution of other Bendigo people.
So, during our general meetings: we have again heard not only excellent speakers from outside Bendigo, but also from our own members and local experts: We have enjoyed

stories of the early members of the Club told by Rob and Cynthia Watkins, learning about Wedgies from Daryl Flea, Bendigo District's Wetlands from Ben Goonan at short notice and Aboriginal Land Management at the time of first white settlement from Gerry Gill. We are looking forward to Eric Wilkinson and Steve Meacher's talk about leadbeater's possum conservation tonight, Phil Dyson's talk on Groundwater next month, and Eric Wilkinson's talk on local geology in November.

Bill Holsworth is assembling an Anniversary booklet featuring the talks we have heard in our 70th Anniversary year, to be launched at our December meeting.

The Wattle excursion last month was carried out in the style of excursions in the early years of our Club. Other excursions were to Kamarooka (Matt Comer), the Big Trees in the Wellsford Forest (John Lindner), Bung Bong old ironbarks (John Lindner), Fungi (Joy Clusker), Geology of the volcanic area south of Castlemaine (Eric Wilkinson), and the bi-annual waterbird counts at the Bendigo Sewage Ponds (Jane Cleary and Anne Bridley).

Sadly, a number of members have died during the year. I make special mention of Peter Ellis who was to speak on the more recent people and activities of the Club but was unable to do so because of illness. Rob and Cynthia's talk was brought forward, and Peter made a herculean effort to hear this talk. He passed away only 5 days later.

The garden has had a makeover. The weeds had proved too much for the club, so initially Jan Orr and later Kerrie Norris as garden convenors and others consulted with Anthony Sheean from the City of Greater Bendigo and later with Mark Toohey from the City's Parks section, to draw up a low maintenance plan. As a result, weeds have been sprayed, additional pathways of woodchips marked out, and the rest of the garden spread with eucalyptus mulch. All this work and the additional planting has been done by the City. Kerrie organised a new sign, and is waiting for suitable weather for renovating the frame, which Simon Hay will be doing.

Earlier in the year, Kerrie was reminded that Council Community Grants had funded a Field Nats revegetation project adjacent to the frog ponds in the Kangaroo Flat Botanic Gardens in 2004, just as the drought was beginning. There was low survival of the initial plantings, and it was agreed to postpone the project till the drought broke. The balance of the grant money has recently been spent on frog-friendly plants, mainly native grasses. The City's Parks Section prepared the site, and the plants were put in by a combined effort of Field Naturalists and the Bendigo Family Nature Club on 16 August.

Also during the year, Kerrie Norris, Devi Shanti and Karen Thomas have become a new mammal group. They have been monitoring existing nest boxes with Maurie Lewis, using the Club's pole camera, and mapping their location. They are organizing the existing records from the nest boxes, and will be asking for funding to replace damaged nest boxes and erecting new ones. Anyone who is interested in being part of this group should contact Kerrie, Devi or Karen.

Another important initiative that the Club has been involved with is the Bendigo Bushland Ambassadors Project of the Victorian National Parks Association, whose aim is to catalyse an interest of local people in their local bushland.

I am very grateful for the considerable support I have had as Acting President both from within the committee and from ordinary members of the Club.
Finally, I give my heartfelt thanks to the office-bearers and the committee members for their hard work during the year. Thanks also to all the speakers and excursion leaders, and to people in positions of responsibility or on subcommittees, and to everyone who has made a contribution and/or participated in the Club's activities during the year.

Diary

All Club meetings are held at the Golden Square Senior Citizens Building, Old High St Golden Square, unless otherwise indicated.

Wednesday October 14 **7.30pm**
The speaker is Phil Dyson and the topic is 'Development and dynamics of the fractured rock groundwater system that lies within the Bendigo Goldfield' (see page 3 for a glimpse)
All are warmly welcome.

Wednesday November 11 **7.30pm**
Our speaker for November is Robert McCormack. Robert will talk about 'Freshwater Crayfish of Victoria'.

Club Excursions
Spring Campout at Mount Samaria State Park
Weekend 17 - 18 October
Full details on page 10, September *Whirrakee*
Contact: John Lindner: Telephone 54483406

City of Greater Bendigo – Environment Strategy Forum (4): Community Discussion:
Creating a roadmap for the next 5 years
Sunday October 25
11am to 4pm (lunch provided)
Capital Theatre, 50 View Street, Bendigo
Key note speaker: Costa Georgiadis
Discussion groups and free kids activities

Family Nature Club
The Nature Club activities will continue in 2015, so look out for announcements or check out their website.
Registration:
Bendigonatureclub@gmail.com or 5443-1326
http://bendigofamilynatureclub.blogspot.com/

Bendigo Native Plant Group meeting.
All interested people are welcome to come along. Meeting starts at 7:30pm on the third Tuesday of the month, Golden Square Senior Citizens Hall.
Next meeting: 20th October

Wildlife Rescue & Information Network Inc.
W.R.I.N. is an organisation dedicated to the care of orphaned, sick or injured native animals. It is fully endorsed by the Dept of Sustainability and Environment.
Please call our Emergency Number for Help for Fauna in Need. Phone: 0419 356433.
WRIN meetings held on the 1st Saturday of the month at 1pm the Golden Square Senior Citizens Hall

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Powerful owls of central Victoria
Everyone is welcome to this community presentation by Emmi Scherlies. Held on 15th October, 8pm, Newstead Community Centre. Gold coin donation.

Managing Victoria's biodiversity under climate change- Symposium October 8-9 2015 at BIO21 Institute, 30 Flemington Road, Parkville.
The program looks great, there will be something for everyone. For more information, call the Victorian National Parks Association on (03) 9341 6500 or email philipi@vnpa.org.au

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Australian Naturalists Network
The ANN Get-Together for 2016 (ANN16) will be held in Western Australia and hosted by the WA Naturalists' Club.
Please contact the ANN 2016 Committee and the secretary Margaret Larke by email at ANN16@wanaturalists.org.au; mlarke@iinet.net.au for more information.

Nature Photography Exhibition
A wonderful exhibition of nature photographs by leading amateur photographer and long-time resident of Newstead, **Alan Jesse Hartup** (1915 –2004) will be opened at the Newstead Railway Arts Hub, on **Saturday October 10th at 3pm**. Viewing during the exhibition is by arrangement (phone 0429671573), or, alternatively, book into the opening event at hartupk@gmail.com